

LETTERS TO THE EDITOR

Reply

We want to thank the editors for sharing with us the reader's comments on our article "Establishing a protocol for endovascular treatment of ruptured abdominal aortic aneurysms: Outcomes of a prospective analysis."

We agree with their insightful observation that in the article we failed to report that patients who underwent endovascular aneurysm repair (EVAR) for ruptured abdominal aortic aneurysm (AAA) without a preoperative computed tomography (CT) scan received a postoperative CT scan during that hospital admission, and that subsequent CT scans 3 months postoperatively might fail to indicate rupture. Having said that, we assure you that all 25% of patients without a preoperative CT scan who underwent emergency EVAR for presumed ruptured AAA did have a postoperative CT scan within 2 weeks of the repair, and in all patients, a retroperitoneal hematoma indicating ruptured AAA was easily visualized.

Again, we appreciate the clarification and agree that hemodynamically unstable patients with a presumed diagnosis of ruptured AAA that undergo EVAR without a preoperative CT scan should undergo CT scan subsequent to EVAR to confirm the rupture diagnosis.

Manish Mehta, MD, MPH

Albany Medical College
Albany Medical Center Hospital
Institute for Vascular Health and Disease
Albany, NY

doi:10.1016/j.jvs.2007.10.014

Regarding "Establishing a protocol for endovascular treatment of ruptured abdominal aortic aneurysms: Outcomes of a prospective analysis"

In the study by Mehta et al,¹ 25% of the patients with suspected rupture of an abdominal aortic aneurysm that underwent endovascular repair (EVAR) did not have a preoperative computed tomography (CT) examination due to hemodynamic instability. The authors did not report that an immediate CT examination was done after the procedure in these patients. When a patient is treated with EVAR, no laparotomy is performed, and the rupture cannot be verified by the intraoperative confirmation of blood in the periaortic tissues.

Experience from open repair of abdominal aortic aneurysms with suspected rupture has shown that when a patient with a symptomatic abdominal aortic aneurysm becomes unstable and is rushed to the operating theater for an immediate open operation, at times no rupture is found. In these patients, the instability is due to some other cause. Hence, some of the patients in the study by Mehta et al, in whom the rupture was not confirmed by CT or by laparotomy, may not have had a ruptured aneurysm. The apparently low mortality rate of 18% might be due to dilution with patients without a ruptured aneurysm.

Confirmation of aneurysm rupture is essential to ensure correct mortality and morbidity statistics of EVAR-treated abdominal aortic aneurysms with suspected rupture. A CT examination should therefore be performed as soon as possible after the EVAR procedure to verify that the aneurysm was ruptured in those cases where a preoperative CT was not done, unless the patient dies and an autopsy can be performed. A follow-up CT, for example at 3

months after the EVAR, may not be adequate to decide whether the aneurysm was ruptured, because periaortic hematoma may have become resorbed at that time.

Einar Dregelid, MD

Department of Surgery
Haukeland University Hospital
Bergen, Norway

REFERENCE

1. Mehta M, Taggart J, Darling RC, Chang BB, Kreienberg PB, Paty PS, et al. Establishing a protocol for endovascular treatment of ruptured abdominal aortic aneurysms: outcomes of a prospective analysis. *J Vasc Surg* 2006;44:1-8.

doi:10.1016/j.jvs.2007.06.052

Regarding: "Spinal cord ischemia may be reduced via a novel technique of intercostal artery revascularization during open thoracoabdominal aneurysm repair"

I read with great interest the recent work of Woo et al¹ regarding the reimplantation of intercostal arteries during open thoracoabdominal aneurysm repair. This article reflects another contribution from a respected aortic center and provides data to support their technique.

I would like to point out that this technique is similar to other techniques previously described. Woo et al create two end-to-side (in addition to the intercostal side-to-side) anastomoses to the neo-aorta. This is in contrast to the similar "Cobrahead" technique of Elefteriades et al,² which created one end-to-side anastomosis, and our technique, which utilized one side-to-side anastomosis (onlay patch technique).³

Each approach accomplishes the same end result, although one might argue that the fewer anastomoses the better. A persistent critique of all three approaches would be the amount of aortic tissue left behind—a critical consideration in patients, for example, with the Marfan syndrome. Nevertheless, the authors are to be congratulated on this nice clinical series.

Abe De Anda, MD

Montefiore Medical Center
Cardiothoracic Surgery
Bronx, NY

REFERENCES

1. Woo EY, Mcgarvery M, Jackson BM, Bavaria JE, Fairman RM, Pochettino A. Spinal cord ischemia may be reduced via a novel technique of intercostal artery revascularization during open thoracoabdominal aneurysm repair. *J Vasc Surg* 2007;46:421-6.
2. Elefteriades JA, Coady MA, Nikas DJ, Kopf GS, Gusberg RJ. "Cobrahead" graft for intercostals artery implantation during descending aortic replacement. *Ann Thorac Surg* 2000;69:1282-4.
3. DeAnda A, Philpott JM, Kasirajan V. Onlay patch for complete intercostal artery preservation during thoracic and thoracoabdominal aortic aneurysm repair. *J Cardiac Surgery* 2005;20:578-581.

doi:10.1016/j.jvs.2007.10.008